

Operating instructions: Type SL

This operating manual is intended to help you to commission the ATEK drive in accordance with relevant regulations. The stated features of our transmissions and the fulfilment of potential guarantee claims depend on compliance with these directions.

Before the drive was shipped, it was subject to strict tests and was properly packed. Before starting operation, check for transport damage. Report any damage to the transport company immediately.

If the transmission is not to be installed immediately, we request that you store it appropriately to its design in a dry place without major temperature changes.

Lubrication

Please refer to the information given on the identification plate on the transmission! Transmissions with lifetime lubrication have been factory fitted with the necessary amounts of lubricants. Subsequent lubrication is only necessary when a substantial amount of lubricant has escaped due to leakage. The type and viscosity of lubricant to be added must be obtained from the manufacturer whilst stating the serial number of the transmission. Transmissions for oil change lubrication are delivered without lubricant and must be filled before commissioning with an oil or grease in accordance with our lubricant recommendation.

Assembly

The transmissions should always be installed according to the fitting position that has been ordered.

The gear unit should be set up on appropriate solid foundations or mounted as a flange drive directly on the machine to be driven. The shaft ends have to be aligned very carefully for quiet running and safety during operation. To compensate for minor mounting inaccuracies we recommend the use of elastic couplings. The couplings must be warm or must be mounted with the aid of D-centring and a screw. Do not hammer! This will avoid damage to the tooth profile, rolling bearings and locking rings.

Plug-in transmissions can be fitted directly onto the shaft of the driven machine. For flange gears it is important that the attachment surface is at exact right angles to the machine shaft's axis. Otherwise the bearings will suffer too much stress and might be damaged. The reaction torque corresponding to the output torque can be supported with a torque converter bearing. The bar should be mounted on the gears' machine side in order to prevent additional bending stresses. Do not mount the gears directly on a foundation plate when the machine shaft is bedded near the gears.

For hollow shafts with a shrunk-on flange, please additionally refer to our assembly instructions for shaft-hub-connections.

Commissioning

Where ventilation of the transmission is desired, the vent hole is sealed for transport. To prevent excess pressure in the transmission and hence leakage the locking screw must be removed and replaced by the provided venting filter before setting the gear in motion. If the temperature of the gear box housing does not exceed 50°C during operation, the vent filter must not be fitted.

Maintenance

All ATEK drives require only a minimum of maintenance. For drives with lifetime lubrication this is reduced to regular checks of the transmission for lubricant loss through leakage.

Motor mounting information

Warning: You may only assemble the motor if you have carefully read through the mounting instructions on the back of this page and understood them and if you are authorized and have proper skills !

The axial plug-in shaft coupling for SL transmissions is most suitable for normal cases of application with no great amount of reversing operation. It is supplied in two versions, as claw coupling with elastomer asterisk or as curved teeth coupling with polyamide case. The couplings permit a simple blind assembly and consist of 3 parts:

1. The coupling hub on the transmission side with a parallel key groove and adjusting screw, already mounted on the drive shaft.
2. Involute gear rim made of plastic (claw coupling) / polyamide case with spiral toothing on the inside (curved teeth coupling).
3. Customer-provided coupling hub with parallel key groove and setting screw.

The power transmission between shaft and coupling hub occurs via a positive key joint. Particular attention has to be paid to the correct, skilled tightening of the locking screw and to the condition of the contact surfaces.

Regarding the tolerances of concentricity, coaxiality and axial run-out, the drive should correspond to the usual industry standards of the IEC 72-2 / DIN 42677 / DIN 42955, since the couplings in use have certain restrictions regarding the deviation of position.

Assembly of the coupling hub on the motor shaft

First it must be guaranteed that the complete drive chain is load-free and isolated.

The hollow hub and the motor shaft must be clean and degreased.

Slide hub onto shaft – Measure dimension “A” on the transmission – Adjust clearance “B” (table 2 or 3). Additional attention must be paid to ensure that the clearance “S” between the motor shaft and the transmission shaft is also observed. The tightening torques for the locking bolts are to be taken from table 1.

Table 1

Locking bolts	M4	M5	M6	M8	M10
Tightening torque TA [Nm]	1,5	2	4,8	10	17

Claw coupling

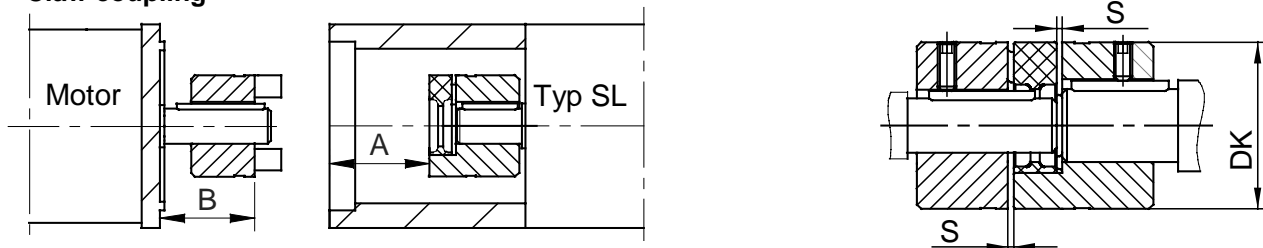


Table 2

Coupling diameter DK [mm]	30	40	55	65	80
Clearance S [mm]	1,5	2	2	2	3
Clearance B = (A-S) [mm]	A - 1,5	A - 2	A - 2	A - 2	A - 3

Curved teeth coupling

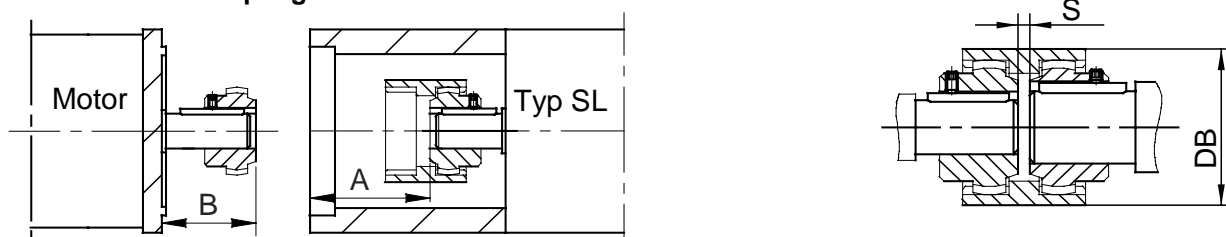


Table 3

Coupling diameter DB [mm]	83	92	95	132	175
Clearance S [mm]	4	4	4	4	3
Clearance B = (A-S) [mm]	A - 4	A - 4	A - 4	A - 4	A - 3